AMENDMENTS TO THE CLAIMS

1-23. (Cancelled)

24. (Previously presented) A system comprising:

an array of analog photocells;

a first plurality of shift cells, an output of each shift cell in the first plurality of shift cells being coupled to an input of the next shift cell in the first plurality of shift cells, each of the photocells in the array of analog photocells being coupled to a corresponding shift cell in the of the first plurality of shift cells;

a second plurality of shift cells, an output of each shift cell in the second plurality of shift cells being coupled to an input of the next shift cell in the second plurality of shift cells, a signal from a terminating output of the first plurality of shift cells being transferred to an input of a first shift cell in the second plurality of shift cells;

a regeneration amplifier having an input coupled to the terminating output of the first plurality of shift cells and having an output coupled to the input of the first shift cell of the second plurality of shift cells; and

a differential operational amplifier having at least two inputs, a first input of the differential operational amplifier being coupled to the terminating output of the first plurality of shift cells and a second input being coupled to a terminating output of the second plurality of shift cells.

25. (Cancelled)

26. (Previously presented) The system of claim 24, wherein the regeneration amplifier enhances the output signal of the first plurality of shift cells.

27. (Previously presented) The system of claim 26, wherein signals obtained from the terminating output of the second plurality of shift cells represent a key frame of an image captured by the array of analog photocells.

28. (Previously presented) The system of claim 27, wherein the differential operational amplifier produces signals that are representative of the difference between signals obtained from the terminating output of the first plurality of shift cells and signal obtained from the terminating output of the second plurality of shift cells.

29. (Previously presented) The system of claim 28, wherein the signals produced by the differential operational amplifier represent a delta frame for an image captured by the array of analog photocells.

30. (Previously presented) A method comprising:

transferring a signal from each photocell in an array of analog photocells to a corresponding storage location in a first plurality of storage locations, an output of each storage location in the first plurality of storage locations being coupled to an input of the next storage location in the first plurality of storage locations;

amplifying signals from a terminating output of the first plurality of storage locations;

transferring the amplified signals from the terminating output of the first plurality of storage locations to an input of a first storage location in a second plurality of storage locations, an output of each storage location in the second plurality of storage locations being coupled to an input of the next storage location in the second plurality of storage locations; and

determining the difference between signals from the terminating output of the first plurality of storage locations and signals from a terminating output of the second plurality of storage locations.

31. (Cancelled)

32. (Previously presented) The method of claim 30, wherein signals obtained from the terminating output of the first plurality of storage locations represent a key frame of an image captured by the array of analog photocells.

33. (Previously presented) The method of claim 32, wherein determining the difference between signals from the terminating output of the first plurality of storage locations and signals from the terminating output of the second plurality of storage locations produces a delta frame for an image captured by the array of analog photocells.

34-51. (Cancelled)